REMARKS/ARGUMENTS

Receipt of the Office Action dated January 2, 2004 is acknowledged. In that Action, the Examiner: 1) rejected claims 1-7 as allegedly unpatentable over Ford (U.S. Patent No. 5,481,613) in view of Liao (U.S. Patent No. 6,606,663); and 2) rejected claims 3 and 8 as allegedly unpatentable over Ford and Liao in further view of Geer (U.S. Patent No. 6,192,131).

With this response, Applicants present new claims 9-16. Reconsideration is respectfully requested.

I. CLAIM REJECTIONS

A. Claim 1

Claim 1 was rejected as allegedly obvious over Ford in view of Liao.

Applicants respectfully submit that the combination of Ford and Liao does not teach or fairly suggest all the limitations of claim 1. While Ford may discuss a key release agent 32, the ACD keys sent to the decrypter 30 are used to decrypt the ciphertext 2 of an encrypted message.

> ACD [Access Control Decryption], on the other hand **is a data structure which accompanies an encrypted message as it traverses a computer network** from an encrypting system (encryptor) to a decrypting system (decryptor).

Ford, Col. 6, lines 21-24 (emphasis added). Neither the R key held by the key release agent 32, nor the ACD keys generated by the key release agent 32, appear to be used to control access to sensitive information in the database. Ford Figure 2; Col. 6, lines 62-66. Even if the credential caching proxy of Liao is combined with Ford, the combination still fails to teach that any keys held or generated by the key release agent 32 should do anything other than decipher the ciphertext of an encrypted message that has traversed a computer network.

Claim 1, by contrast, recites, "a key repository process on the central server, ... **the key repository process further configured** to access the enterprise credentials and **to authenticate authorizations to access the sensitive information in the database** ... ." The combination of Ford and Liao does not teach or fairly suggest that the keys held or generated by Ford's key

release agent should do anything other than decrypt an encrypted message that has traversed a computer network. For this reason alone claim 1 should be allowed.

Claim 1 further recites, "an agent on the remote server, the agent acting on behalf of the key repository process of the central server; ... [and] wherein the agent authenticates authorizations of specific applications to access resources ... ." The combination of Ford and Liao does not teach or fairly suggest the agent acting on behalf of the key repository process.

Based on the foregoing, Applicants respectfully submit that claim 1, and all claims which depend from claim 1 (claims 2-6), should be allowed.

B. Claim 3

Claim 3 was rejected as allegedly obvious over Ford and Liao in further view of Geer.

Applicants respectfully submit that the combination of Ford, Liao and Geer does not teach or fairly suggest all the limitations of claim 3. Geer appears to teach a conversation log that, when the logged conversation is complete, is encrypted using a "new private key." Geer, Col. 11 lines15-20. Thus, keys held by the parties are used to open the record of past conversations. Additional keys may be needed (contrast reconstructing a single master key) to open sub-conversations of the log. Geer, Col. 11, lines 33-38.

Claim 3, by contrast, requires communication authenticated by a shared secret (the shared secret protected by a level of trust), not the log of a past communication. Claim 3 further recites, "the level of trust defined as the number of individuals required for reconstructing **the master key**... ." This in comparison to Geer that appears to teach needing **multiple keys** "to open sub-conversations of the log."

Claim 3 is allowable for at least the same reasons as claims 1 and 2 from which it depends, as well as for the additional limitations therein.

C. Claim 4

Claim 4 was rejected as allegedly obvious over Ford in view of Liao.

Applicants respectfully submit that the combination of Ford and Liao does not teach or fairly suggest all the limitations of claim 4. Ford appears to teach only a single key release agent 32. Ford Figure 2; Col. 6, lines 62-66. Even if one was to (non-textually) duplicate Ford's key release agent 32, Ford fails to teach what the relationship should be between the duplicate agents.

Claim 4, by contrast, recites, "wherein the agent in the remote server **is an independent key repository process**... ." Thus, with the limitations of claim 1 requiring a key repository process on the central server, two such processes are claimed, each residing on a different server. The combination of Ford and Liao does not teach such a system. Claim 4 further recites that the independent key repository process has "a level of trust equivalent to that of the key repository process in the central server," and the independent key repository process of the remote server "authenticates authorizations of specific applications to access recourses ... on the central server." Even if Ford and Liao taught multiple key release agents 32 (which Applicants do not admit), the combination of Ford and Liao fail to teach the relationship of the independent key repository process to the central server, and that such a process could or should authenticate authorizations to resources on a server different from where it executes.

Claim 4 is allowable for at least the same reasons as claim 1 from which it depends, as well as for the additional limitations therein.

D. Claim 7

Claim 7 was rejected as allegedly obvious over Ford in view of Liao.

Applicants respectfully submit that the combination of Ford and Liao does not teach or fairly suggest all the limitations of claim 7. While Ford may discuss a key release agent 32, the ACD keys sent to the decrypter 30 are used to decrypt the ciphertext 2 of an encrypted message that has traversed a computer network. Ford, Col. 6, lines 21-24. Neither the R key held by the key release agent 32, nor the ACD keys generated by the key release agent 32, appear to be used to control access to sensitive information in the database. Ford Figure 2; Col. 6, lines 62-66. Even if the credential caching proxy of Liao is combined with Ford, the combination still fails to teach that any keys held or generated by the key

release agent 32 should do anything other than decipher the encrypted message that has traversed a computer network.

By contrast, claim 7 recites, "storing enterprise credentials in a database on a central server ...; establishing one or more master keys for managing information in the database by a key repository process ... ." Even if the credentials cached by Liao's proxy server are assumed to be the enterprise credentials in a database, the combination of Ford and Liao still fails to teach one or more master keys for managing the information in the database. The keys held or generated by Ford's key release agent appear only to be operable to decipher the ciphertext held by the decrypter 30, not as a gatekeeper mechanism for access to information in the database. Claim 7 further recites, "establishing communications between the key repository process on the central server and an agent on the remote server, the agent acting on behalf of the key repository process ... ." The key repository process is claimed to establish "one or more master keys for managing information in the database ... ." The combination of Ford and Liao does not teach or fairly suggest the agent acting on behalf of the key repository process.

Based on the foregoing, claim 7 should be allowed.

E. Claim 8

Claim 8 was rejected as allegedly obvious over Ford and Liao, and further in view of Geer.

Ford teaches that the keys held or generated by the key release agent may be used to decipher an encrypted message in the possession of the decrypter 30, not in the database associated with the key release agent 32. Liao teaches a proxy server caching credentials for wireless clients. Even if it is assumed that the credentials cached are placed in a database, Ford and Liao (even in combination with Geer) fail to teach or fairly suggest a cryptographically protected database. The cryptographic protection in Ford appears to be protection of the ciphertext. Liao does not appear to cryptographically protect the wireless client's cached credentials, and Geer is relied upon only for transmitting encrypted messages.

By contrast, claim 8 specifically recites, "providing a computer system having at least one server and a cryptographically protected database ... ." Ford and Liao, in view of Geer, do not teach or fairly suggest such a limitation. Claim 8 further recites, "conducting, by the application process, a query of the key repository process for sensitive information ... ." The Office Action dated January 2, 2004 does not make clear which systems of the cited references would be the application process making a "query of the key repository process for sensitive information," and thus fails to make a *prima facie* case.

Based on the foregoing, Applicants respectfully submit that claim 8 should be allowed.

II. NEW CLAIMS

With this Response Applicants present new claims 9 and 10. These claims finds support in claims 1 and 4. No new matter is presented by these claims.

III. CONCLUSION

Applicants respectfully request reconsideration and allowance of the pending claims. If the Examiner feels that a telephone conference would expedite the resolution of this case, he is respectfully requested to contact the undersigned.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-

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Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Respectfully submitted,

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